

EPA-PNL-3639

"Alderfer, Amy L (DFG)"
<amy.alderfer@alaska.gov>

09/14/2011 05:50 PM

To "Bob Hartley (E-mail)", "Brenda Konar' (E-mail)", ccfrancis,
Derek Bynagle, Donna Robertson Aderhold, "Fink, Mark J
(DFG)", geomatz, horn, "Kerkvliet, Carol M (DFG)",
Kris.Holderied, "Litchfield, Virginia P (DFG)", marianne_aplin,
Mary_McBurney, "Max Best (E-mail) (E-mail)", mopheim,
"Otis, Ted (DFG)", Phil North, dlowney, roger.maccampbell,
"Steve Lewis (E-mail) (E-mail)", "Stevens, Timothy S (DEC)",
"Thompson, Richard B (DNR)"
cc "DFG.DSF.KBRR"

bcc

Subject September 21st Community Council meeting

4 attachments



image001.gif



September Agenda.docx



September Quarterly Report.pdf



sum_060111_mtg.docx

Hello Community Council members and KBRR staff –

Our upcoming Community Council meeting is next **Wednesday, September 21st** from noon to 3:00 pm in the seminar room at Alaska Islands & Ocean Visitor Center. Attached is the draft agenda, quarterly report, and previous meeting minutes for the upcoming meeting. Please note that these are also available on the council website: <http://kbaycouncil.wordpress.com> If you would like a hard-copy mailed to you, let me know and we'll mail it out.

If you are unable to attend or would like to teleconference in, please let me know.

Best,

Amy

Amy Alderfer

Kachemak Bay Research Reserve

Homer, Alaska

Phone: (907) 226-4650

Fax: (907) 235-4794

E-mail: Amy.Alderfer@alaska.gov

Kachemak Bay Research Reserve Community Council Meeting

Wednesday, September 21, 2011

Noon – 3:00 pm

Alaska Islands & Ocean Visitor Center – Seminar Room

----- Agenda Topics -----

- | | |
|-------|---|
| 12:00 | Welcome and approval of previous meeting minutes and agenda |
| 12:15 | Quarterly Report – Terry, Angie, Catie, and Megan |
| 12:30 | Committee Reports – Research, Education & Legislative |
| 12:45 | Council and Public Comment |
| 1:00 | Homer Foundation Overview – Joy Steward, Executive Director |
| 1:15 | Invasive Species Monitoring: Future Directions- Angie, Catie, and Joel |
| 1:45 | Watershed Program: Next Steps – Coowe Walker |
| 2:05 | Break |
| 2:20 | Fiscal Update |
| 2:30 | Science Collaborative Update |
| 2:45 | Establish 2012 Meeting dates/times – Wednesday noon – 3:00pm
Possible Dates: March 14 th ; June 6 th ; September 19 th ; December 5 th |
| 3:00 | Meeting Adjourns |

Our next Community Council meeting is Wednesday, December 7th

Kachemak Bay Research Reserve

Quarterly Report for June 2nd – September 21st

Kachemak Bay Research Reserve's mission is to enhance understanding and appreciation of the Kachemak Bay estuary and adjacent waters to ensure that these ecosystems remain healthy and productive.

Facilities

The Alaska Islands & Ocean Visitor Center (AIOVC) is currently open for its fall hours. The Visitor Center is open 10:00 am – 5:00 pm September 7th – September 30th and open 12 noon to 5:00 pm starting October 1st. Offices for both the Alaska Maritime National Wildlife Refuge and Kachemak Bay Research Reserve are open Monday through Friday from 8:00 a.m. - 5:00 p.m.

Staff

- **Conrad Field** has been hired as a short-term biologist to assist with the Science Collaborative project.
- **Tammy Hoem-Neher** has been hired as a short-term technician to assist with the Headwater Stream project and with data analysis for the Fox River Flats Juvenile Salmon study this fall.
- **Carmen Field** will be on seasonal leave mid-October through mid-November.



Research Reserve research coordinator Angie Doroff and Kasitsna Bay co-directors Kris Holderied and Dave Christie assist Dr. Lubchenco conduct a CTD cast during her recent visit to Kachemak Bay.

Administration

- KBRR was pleased to host a number of special guests to the Reserve over the summer. Notable guests included NOAA Administrator **Dr. Jane Lubchenco**, NOAA Director of Communications **Justin Kenney**, NOAA Program Coordinator **Kristin Cardin**, Natural Resources Assistant to Senator Mark Begich, **Bob King**, and **Kaleb Froehlich**, Senior Counsel to the Senate Energy and Natural Resources Committee (Senator Murkowski's office who is ranking minority member on the Committee).

- **Management Plan 2011 – 2015:** The draft plan is being revised based on comments from NOAA – Estuarine Reserves Division and KBRR staff. Public review will be conducted Fall 2011.

Research

- **System-wide Monitoring Program (SWMP):** Tracking weather, water quality, and water nutrient levels continues at our long-term monitoring sites located in Seldovia and Homer.
 - Real-time data can be accessed from websites such as: National Data Buoy Center Weather Underground, Google Earth, and the Northwest Association of Networked Ocean Observing Systems
 - Up to ten years of historical data (2001-2011) can be accessed from the Centralized Data Management Office <http://cdmo.baruch.sc.edu/>
- **ARGUS Camera's:** KBRR continues to provide maintenance as needed to the ARGUS array looking at sediment transport can be found at: <http://www.planetargus.com/homer/>.
- **SWMP Biomonitoring:** A final report is now available upon request for the vegetation and plot retention for Beluga Slough and Fox River Flats 2010.

Juvenile Salmon Rearing and Migratory Habitats of the Fox River Flats Estuary:

We continue our juvenile salmon sampling in the Fox River. Having started the work in early May, we are completing six months of sampling this month (September). The sampling this year involves tagging and an antennae array, constructed by Coble Geophysics. This set up allows us to monitor how long juvenile salmon are residing in one of the off-channel tributaries. Sampling also includes bioenergetic studies examining prey consumed over a 24 hour period. This data will allow us to model incremental growth in juvenile salmon.



Research Reserve summer technician, Jazzi Maurer, identifies a fish by headlamp during one of the 24 hour bioenergetic sampling bouts.

- **Wintering Habitat of Juvenile Salmon in the Anchor River:** We successfully completed operation of the smolt outmigration trap on the Anchor River in collaboration with the USFWS, thanks in large part to the substantial efforts of UAF graduate student, Michelle Gutsch. Several (35 of the 650+/-) of the fish that were PIT tagged in the fall and spring were recaptured at the smolt trap. Among the interesting results so far are that most of the recaptured fish showed a significant amount of growth (averaging over 20mm). We are in the process of developing a new proposal to further research into these important overwintering habitats.



University of Alaska Fairbanks graduate student, Michelle Gutsch prepares to release juvenile fish captured at the smolt trap.

- **Headwater Stream research:** Field work for the headwater stream research project is now completed, thanks in large part to our partners. Baylor graduate students, Pam Kostka and Dan Hiatt, and University of South Florida graduate student, Mike Callahan, all put in long hours in the field and laboratory, assisted by our hard-working technicians, Jazzi Maurer and Johanna Spaeder. Several new nominations to the anadromous stream catalog resulted from this work. We are in the process of entering and analyzing the data, and developing a new proposal to keep this exciting research moving.
- **Sea Bird Diet:** The KBRR is working collaboratively with the Alaska Maritime National Wildlife Refuge for the next five years to develop a seabird diet analysis program. Analysis of seabird diet in Alaska will provide information on prey and shifts in prey composition over time; this may be a valuable proxy for monitoring environmental change in our oceans. We are currently creating an annual report of what was accomplished with the past year of funding. While learning to identify plankton, sometimes down to the species level, we have created a reference collection of plankton commonly found in Auklet diet samples and are in the process of creating a laboratory manual for plankton identification.
- **Assessing Coastal Uplift and Habitat Changes in a Glacially Influenced Estuary System:** The Reserve began a three-year study funded by the Science Collaborative, University of New Hampshire. The following is a description of the project. Coastal Alaska is a diverse and dynamic landscape. In 1964, a powerful earthquake rocked south-central Alaska and the coast is still uplifting from that event today. In Southeast and South-central Alaska, rapidly melting ice fields have reduced the weight on the earth's surface causing another form of uplift, isostatic rebound, in coastal communities. Melt water from these ice fields has contributed to regional sea level rise as it enters the near shore Alaska Coastal Current. In the balance of these conflicting forces are the communities that surround Kachemak Bay, like Homer, that depend on local near shore fisheries for food and safe harbor infrastructure for transportation.

Progress on this study has been insightful and interesting. In the past 6 months, we held two Core Intended User (CIU) meetings with our collaborators on the study (16 March and 1 June 2011). In March, our Coastal Zone Management representative, Gary Williams presented on coastal erosion and land use planning issues in our region. In June, our Harbor Master presented on dredging and sedimentation issues in the Homer Harbor. In July, we held a Discovery Lab about all aspects of our Science Collaborative study for the general public (320 people attended over a 3-day period).

We accomplished the following field work during this summer: installed a third Continuously Operating GPS Reference Stations (CORS) in Petersen Bay, set the infrastructure for all four salt marsh sites (permanent transects, soil, water, and barometric loggers, and vertically stable benchmarks), developed a database structure for the study, completed the vegetation monitoring, conducted a citizen science training session (15 people) and monitored the biological diversity of two of the four salt marsh sites, and began GPS monitoring of vertically stable benchmarks in our region.

- **Alaska Marine Invasive Species: Monitoring, Research, and Response Planning.** The Reserve completed a report evaluating existing monitoring data for invasive green crabs, tunicates, and harmful algae and proposing future research directions. This document will guide the reserves research priorities with respect to harmful species in the years to come. Staff have now begun using the existing SWMP monitoring data to examine the physical parameters associated with algal bloom timing and hope to also use this information to inform our understanding of the possibility of tunicate and green crab invasions into Kachemak Bay.
- **Graduate Research Fellow (GRF): Tammy Hoem Neher and Raphaelle Descoteaux** are continuing with their respective projects. Tammy will be wrapping up her final sampling in the Fox and Anchor Rivers in September, and will then move on to data analysis and writing her

dissertation. Raphaëlle will be leaving the classroom and setting up her experiments at the KBL this spring.

- **EVOS (Exxon Valdez Oil Spill) Proposal:** KBRR joined a consortium of researchers in a long-term monitoring proposal which was submitted to the EVOS Trustee Council in early March. The draft proposal was accepted for funding and proposal development continues. More soon.

Education

- **Summer Discovery Labs:** This summer, we offered seven weeks of summer Discovery Labs between June 22nd and August 6th with topics ranging from *Alaska's Coastal Birds* to *Kachemak Bay Fish and Fishing*. Thanks to the enthusiastic assistance of our two summer education interns, Ericka Augustyn and Curtis Hightower, and weekly participation by a cadre of great volunteers we engaged with 2,037 visitors in the lab, and had our biggest day ever on July 2th, when 251 people came through the doors.



Research Reserve Education Intern, Ericka Augustyn explains to a visitor how Global Positioning Systems work during the July 20th "What's Up Down There?" Discovery Lab.

- Our long-term college intern, **Erica Chenoweth**, completed her undergraduate degree at UAA in May, and concluded her internship with us at the end of August. We'll remember her for her energy, enthusiasm, and willingness to take on every task that came her way. Erica pulled together a very successful Kachemak Bay Fish and Fishing Lab August 3 – 6 as her last hurrah here, and we wish her much success in the future!
- **Summer Estuary Hikes and Beach Walks:** Education staff conducted 18 Estuary Walks with a total of 254 participants and 7 beach walks with a total of 80 participants.
- **Brown Bags:** We've had a busy summer with several great lectures and 123 participants:
 - June 16 Amanda Rosenberger – Fish and Critical Refugia in Australia's Drought –Prone Outback
 - July 22 Jenny Thomas (Hollings Scholar) – Trends and Variability in pH and Oceanography in Kachemak Bay
 - July 27 Rob Skoumal, Danielle Claar, and Courtney Ham (Hollings Scholars) on their summer research projects in Kachemak Bay including: Seasonal and interannual variability of oceanography in Kachemak Bay; Sunflower Sea Star (*Pycnopodia helianthides*) feeding behavior at sea otter pits, and Variability of nearshore temperature and upper intertidal ecosystem structure in Kachemak Bay.
 - August 15 Dr. Pat Tester and Ray RaLonde – Paralytic Shellfish Poisoning
 - August 18 Jeff Goldman – The History of Studying Endothermy in Fishes: How many places

can you stick a thermometer?

September 8 Lauren Bell – Investigating the Behavior of Humboldt Squid. Alaska's most intriguing prospective resident.

- **Fall/Winter Discovery Labs:** Our upcoming Public Discovery Lab schedule is as follows:
 - **November 2** *Jammin' Salmon*
 - **December 7** *Sponge Bob Goes to School*
 - **February 1** *Fish On! Sport Fishing in Kachemak Bay*
 - **March 7** *What's New in the Bay*
 - **April 4** *Our Landscape Over Time*
 - **May 2** *Growing Naturalists*

- **Marine Invasives:**

Phytoplankton Monitoring Program

Eleven monitors, varying from oyster farmers, high school students, college students, Fish and Game employees, a harbormaster, and Coastal Studies educators, along with our staff, looked at 177 phytoplankton samples.

In July, a harmful species was identified and a sample sent to South Carolina NOAA for testing. No toxins were identified.

Another interesting event was a very strong red color reported multiple times in the waters of Sadie Cove. This bloom proved to be very evasive. Catie found red ciliates and concluded that they were the cause, but NOAA believes the ciliates were simply eating something red. This is still being investigated by NOAA. There is no indication that the color was related to harmful toxins. This event took a lot of energy to sort out, but it was a great way to test our Harmful Algal Bloom response protocol.

The Nick Dudiak Fishing Lagoon was the scene of the most intensive phytoplankton monitoring this summer. KBRR monitors, Jane Middleton and Lauren Bell, helped ADF&G gather data to help with the *Chaetoceros* diatom problem. High concentrations of this microscopic diatom can clog the gills of smolt, adding stress and ultimately the loss of many smolt after they are released into the fishing hole.

Smithsonian Tunicate Plate Program

Settling plates continue to be checked in the Seldovia and Homer harbors. Nothing invasive has shown up this year, and our focus is on creating a field guide to help the general public distinguish between native and invasive tunicate species if they find something suspicious. We are also looking into expanding our monitoring into Cook Inlet.

Invasive European Green Crab Program

No European green crabs were discovered in Kachemak Bay this summer or anywhere in Alaska to date. In addition to our 10 regular monitors and locations, we were fortunate to have the local ADF&G repeat a green crab trapping effort that was first conducted in 2001. It will be interesting to compare the native species caught then and 10 years later. Trapping locations were from Nanwalek to Halibut Cove on the south side of Kachemak Bay, and the Homer Spit and Mud Bay on the north side.



Angie Doroff, Conrad Field, and Community volunteer, Louie Maurer examine a vegetation plot at China Poot mud flats as part of the Community Monitoring section of the Science Collaborative project.

CTP

- The summer quarter has been utilized to plan and develop September 2011 – May 2012 CTP events and pursue funding support for CTP and reserve-wide activities. Upcoming events in which CTP is participating/partnering are:
 - September 14 & 15th “Climate Friendly Refuge Workshop” in Soldotna for KP audience
 - October 6 & 7th Watershed Symposium in Soldotna for KP audience
 - Coastal Service Center training, Public Issues and Conflict Management, dates TBD
 - March 8, 9, & 10th Kachemak Bay Science Conference

Upcoming Events/Meetings

- **September 15th:** Former Community Council member Daisy Lee Bitter will receive the Alaska Conservation Foundation, Jerry S. Dixon Award for Excellence in Environmental Education in Anchorage at their awards banquet to be held at the Alaska Aviation Museum.
- **October 23rd -28th:** Terry Thompson is scheduled to attend the NERR national meeting hosted by the GTM NERR in Ponte Verda Beach, FL.
- **December 7th:** Our next Community Council meeting.
- **January 16th – 20th:** The Marine Science Symposium will be held in Anchorage this week.
- **March 8th -10th:** Kachemak Bay Science Conference will be held in Homer.

Staff Attended Meetings/Training:

- **June 6th – 10th:** Terry Thompson attended the NERRS Managers meeting hosted by the Jacque Cousteau NERR (New Jersey).
- **June 11th:** Trails Day!
- **August 13th and 20th:** Science Collaborative Community Monitoring days! A group of 16-18 community volunteers spent two days in the salt marshes of Beluga Slough and China Poot. See the Science Collaborative update in research for more information.
- **August 24th:** Terry Thompson and Megan Murphy attend the NOAA National Ocean Service and Alaska Energy Authority Cook Inlet Hydrokinetic project Stakeholder meeting in Anchorage.
- **August 29th – September 1st:** Amy Alderfer attended grants management training in Portland, Oregon focusing on the Fish and Wildlife Service’s Wildlife and Sport Fish Restoration (WSFR) grant programs. The State Wildlife Grant (SWG) programs that funds the Reserve’s Harmful Species Monitoring and Fox River Flats Juvenile Salmon projects are part of this overall program.

- **September 14th – 15th:** Terry Thompson and Megan Murphy attended U.S. Fish and Wildlife Service climate change workshop that was held in Kenai. The workshop provided an overview of climate change science and impacts to the region.

Kachemak Bay Research Reserve
Community Council
Minutes – June 1, 2011

Session 11-02. The thirty-sixth meeting of the Kachemak Bay Research Reserve Council was called to order at 12:10 p.m. by Ralph Broshes at the Alaska Islands and Ocean Visitor Center, Homer, Alaska.

Council Members Present: Bob Hartley, Ginny Litchfield, Rick Thompson, Kris Holderied, Ralph Broshes, Phil North, Donna Aderhold, Michael Opheim, Charles Francis, Ted Otis, Roger McCampbell, Steve Lewis, George Matz

Council Members Absent: Jim Hornaday, Marianne Aplin, Tim Stevens, Brenda Konar

Reserve Staff Present: Amy Alderfer, Terry Thompson, Angie Doroff, Megan Murphy, Steve Baird, Kim Cooney, Carmen Field, Jess Ryan

Reserve Staff Absent: Joel Markis, Ori Badajos, Coowe Walker, Catie Bursch

Guests: Marie McCarty (KHLT), Gary Williams (KPB), Raphaelle Descoteaux (GRF), Hollings Scholars: Danielle Claar, Rob Skoumal, Jenny Thomas,

Members of the public: None

Welcome, introduction and approval of previous meeting minutes & agenda

Ralph opened with introductions around the room. *Our Changing Sea*, a book by former Graduate Research Fellow, Anne Salomon on her subsistence studies in KBay, will be given to Will Files in recognition of his service on the council.

Minutes were approved as amended.

Quarterly Report

Terry congratulated Amy and Kim on their promotions to Assistant Manager and Administrative Assistant, respectively. State Wildlife Grant \$\$ was retained in federal FY12 at a 30% reduction from previous years which could affect funding in state FY13. Increased costs and cuts in federal funding have forced travel reductions across the board. This year's fall meeting will be in Homer vs. Soldotna. FY11 federal final guidance for state FY12 NOAA Operations award beginning 7/1/11 is still pending.

Angie reported that several research projects are in full swing. KBRR and Kasitsna Bay Lab just resubmitted a multi-partnered EVOS proposal for long-term monitoring in spill-affected areas between Kbay and PWS. Funding is for 5-20 years.

Jess reported on the Discovery Lab schedule which will be one week shorter this summer to accommodate fieldwork on the Science Collaborative project. Two interns—Curtis Hightower and Ericka Augustyn—arrive in mid-June to assist with Education programming. Catie continues to head-up the community monitoring program. Carmen will be out all of June.

Committee Reports – Research, Education, Legislative

The Research Committee reviewed the KBRR 5-year Research Plan and discussed coordinating on invasive species (see attached notes). The Education Committee provided feedback on the CTP Needs Assessment. The Legislative Committee discussed conveying a consistent message to the public.

Council and Public Comment

Roger reported on the new airport display, the rumor that pinks in Little Tutka Bay will be moved to Halibut Cove Lagoon, and renewed discussion of personal watercraft in Kachemak Bay which is on DNR's fall board meeting agenda.

Michael Opheim reported that SVT received four new grants (recycle bins, drift cards, abandoned dump site assessment, culture camp). SVT is also conducting a subsistence food survey with tribal members to reveal any contamination concerns. A fish passage at Seldovia Falls will be expensive according to the feasibility study.

Steve Lewis opened discussion on the need for readily deployable monitoring equipment and protocols for measuring radiation in fisheries areas.

Kris provided an update on the long-term monitoring EVOS proposal that the Trustees Council will vote on again in the fall.

Phil said EPA is conducting an EIS in the [Bristol Bay watershed](#) and could restrict mining activity or force different technology. He said if Pebble Mine goes through, it will impact Kachemak Bay economically and otherwise.

Ted Otis took 1st graders [razor clamming](#) in Ninilchik and recommended the experience to everyone.

Kachemak Heritage Land Trust – Marie McCarty

Executive Director, Marie McCarty, presented an overview of KHLT, whose goal is to [preserve private land for public benefit forever](#) through donations, purchases, and various conservation agreements. Landowner involvement and science help determine which lands to conserve and stewardship donations fund land management over time. Handouts were provided.

Larval Crab & Ocean Acidification – Raphaelle Descoteaux (GRF)

Raphaelle, a 2nd year Graduate Research Fellow with KBRR, provided an update on her research project which examines the [effects of increased ocean acidification](#) on 3 species of larval crab. Preliminary data indicate higher mortality in acidic treatments. She discussed adaptation to gradual pH change vs. the immediate change presented in the lab, suggesting that if larva can't survive small changes, the population will eventually decrease.

Break 2:15-2:30

Management Plan Update – Terry Thompson

Terry identified 5 goals of the draft management plan which is being reviewed in-house, by the Department, and NOAA, with public review likely in September. In the interest of time, he tabled discussion until the September meeting.

Research 5-Year Plan – Angela Doroff

Angie said the KBRR research team identified [climate change, long-term monitoring, and harvested species](#) as important issues to focus on. Projected accomplishments for 2011-15 include: communication/data archival/sharing, physical and biological sciences. Discussion on [saltmarshes as indicator habitats](#) for species susceptible to small changes in climate.

K-12 Market Analysis/Needs Assessment – Jess Ryan

Jess gave an overview of the needs assessment to determine the level of [estuarine/marine science](#) and climate change knowledge/interest among teachers. Results will allow KBRR to shape outreach to meet expressed needs through [KBEEA](#).

Council Member Recruitment

Local teacher, Derek Bynagle, was the sole applicant for the council seat vacated by Will Files. Council recommended Derek for approval by the regional office. A suggestion was made to discuss the recruitment process before next spring.

Meeting Adjourned

The meeting adjourned at 3:20 p.m. The [next meeting](#) will be Wednesday, September 21st at AIOVC.